



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/601,912	06/23/2003	Richard L. Antrim	006401.00399	7581

22908 7590 05/02/2005

BANNER & WITCOFF, LTD.  
TEN SOUTH WACKER DRIVE  
SUITE 3000  
CHICAGO, IL 60606

EXAMINER

KHARE, DEVESH

ART UNIT PAPER NUMBER

1623

DATE MAILED: 05/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/601,912

Applicant(s)

ANTRIM ET AL.

Examiner

Devesh Khare

Art Unit

1623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 1623

Applicant's remarks filed on 02/17/2005 are acknowledged.

The Declaration of Richard L. Antrim has been entered.

Claims 1-10 and 34 are currently pending in this application.

**35 U.S.C. 112, second paragraph rejection**

The following is a quotation of the second paragraph of 35 U.S.C. 112:

*The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.*

Claims 1-10 and 34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention of record.

The term "some" in claim 1 (line 5) is a relative term, which renders the claim indefinite. The term "some" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claims which depend from an indefinite claim which fail to obviate the indefiniteness of the claim from which they depend are also seen to be indefinite and are also rejected for the reasons set forth supra.

**Response to Arguments**

Applicant's arguments traversing the rejection of claims 1-10 and 34 under the second paragraph of 35 U.S.C. 112 have been fully considered but they are not persuasive.

Art Unit: 1623

Applicants argue, "the term "some" in claim 1 does not render the claim indefinite". The metes and bounds of the term "some" in claim 1 applicant intend and the degree of the term "some" cannot be readily ascertained. Applicant's claim fails to particularly point out the degree of the term "some" in claim 1.

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims **1-10 and newly added claim 34** are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-15 of U.S. Patent No. 6,720,418('418) in view of Vianen et al. (EP 404 227)(Vianen) of record.

The instant invention is directed to a saccharide-derivatized oligosaccharide composition, comprising extrusion reaction product of a saccharide (DP 1-4) and mixture of malto-oligosaccharide and mixture of malto-oligosaccharide derivative with the extrusion produced saccharide. Dependent claim limitations include the saccharide product consisting of dextrose in monohydrate form or a mixture of dextrose and hydrogenated starch hydrolyzate, maltose, maltotriose and maltotetraose; saccharide

Art Unit: 1623

product comprising a mixture of dextrose and at least one other saccharide; degree of polymerization of the malto-oligosaccharide greater than 5; and hydrozylate is sorbitol.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the '418 patent discloses a mixture of derivatized malto-oligosaccharides prepared by catalytic hydrogenation of a mixture of malto-oligosaccharide species and derivatization of the hydrogenated malto-oligosaccharide mixture (claims 1-10). The extrusion reaction product of a saccharide of instant claims 1-10 is disclosed in claims 1,6 and 11 of the '418 patent. The '418 patent discloses malto-oligosaccharides having a degree of polymerization (DP) greater than 5 (claim 1). The '418 patent differs from the applicant's invention that the composition of the '418 patent does not include the hydrogenated malto-oligosaccharide mixture derivatized by a hydrogenated sugar such as sorbitol.

Vianen teaches a process for the preparation of low-calorie polysaccharide derivative by reacting a saccharide with a food-grade polyol such as sorbitol and the said products (col. 1, lines 1-15). Vianen discloses that the said saccharide can be glucose, maltose or maltotriose (col.2, lines 45-50). Vianen also discloses that the said low-calorie polysaccharide derivative can be used as a low-calorie bulking agent to diet foodstuffs to impart characteristics of high-calorie products (col. 4, lines 20-25).

It would have been obvious to person having ordinary skill in the art at the time the invention was made, to modify the composition containing a mixture of malto-oligosaccharides because '418 had disclosed that such compositions had many commercial uses such as encapsulants, acidulants, flocculants, adhesives,

Art Unit: 1623

antiredeposition agents, and detergent builders (col.1, lines 35-38), in view of the recognition in the art, as evidenced by Vianen reference, that discloses that the saccharides such as glucose, maltose or maltotriose can be derivatized with a food-grade polyol such as sorbitol and can be used as a low-calorie bulking agent to diet foodstuffs to impart characteristics of high-calorie products. The motivation is provided by the '418 patent, the prior art suggests that the mixture of malto-oligosaccharides and derivatized malto-oligosaccharides have many commercial uses such as encapsulants, acidulants, flocculants, adhesives, antiredeposition agents, and detergent builders (col.1, lines 28-38).

The examiner notes the instant claims and the '418 claims do indeed substantially overlap and this obviousness-type double patenting rejection is necessary to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees.

### **Response to Arguments**

Applicant's arguments traversing the rejection of claims 1-10 and 34 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-15 of U.S. Patent No. 6,720,418('418) in view of Vianen et al. (EP 404 227)(Vianen) have been fully considered but they are not persuasive.

Applicant argues, "The processes described in the '418 patent claims and in the claims of the present application are different, and there is no teaching in the combined '418 patent claims and the Vianen reference of the present invention".

Art Unit: 1623

It is noted that the '418 patent discloses a mixture of derivatized malto-oligosaccharides prepared by catalytic hydrogenation of a mixture of malto-oligosaccharide species and derivatization of the hydrogenated malto-oligosaccharide mixture (claims 1-10). The extrusion reaction product of a saccharide of instant claims 1-10 is disclosed in claims 1,6 and 11 of the '418 patent. The prior art Vianen et al. overcome the deficiency of the '418 patent by disclosing a process for the preparation of low-calorie polysaccharide derivative by reacting a saccharide with a food-grade polyol such as sorbitol and the said products (col. 1, lines 1-15).

The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

### **35 U.S.C. 103(a) rejection**

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

*(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.*

Art Unit: 1623

Claims **1-10 and newly added claim 34** are rejected under 35 U.S.C. 103(a) as being obvious over claims 1-10 of U.S. Patent No. 6,720,418('418) (Antrim et al.) in view of Vianen et al. (EP 404 227)(Vianen) of record.

The instant invention is directed to a saccharide-derivatized oligosaccharide composition, comprising extrusion reaction product of a saccharide (DP 1-4) and mixture of malto-oligosaccharide and mixture of malto-oligosaccharide derivative with the extrusion produced saccharide. Dependent claim limitations include the saccharide product consisting of dextrose in monohydrate form or a mixture of dextrose and hydrogenated starch hydrolyzate, maltose, maltotriose and maltotetraose; saccharide product comprising a mixture of dextrose and at least one other saccharide; degree of polymerization of the malto-oligosaccharide greater than 5; and hydrozylate is sorbitol. The '418 patent teaches a mixture of derivatized malto-oligosaccharides prepared by catalytic hydrogenation of a mixture of malto-oligosaccharide species and derivatization of the hydrogenated malto-oligosaccharide mixture (claims 1-10). The '418 patent also discloses the mixture of oligosaccharides from the starch hydrolyzates (col. 1, lines 16-27). The '418 patent discloses malto-oligosaccharides having a degree of polymerization (DP) greater than 5 (claim 1). The '418 patent also discloses that DP profile of the reduced derivatized malto-oligosaccharides are close to the starting mixture (col. 2, lines 32-39). The '418 patent differs from the applicant's invention that the composition of the '418 patent does not include derivatization of the hydrogenated malto-oligosaccharide mixture by a hydrogenated sugar such as sorbitol.



Art Unit: 1623

Vianen a process for the preparation of low-calorie polysaccharide derivative by reacting a saccharide with a food-grade polyol such as sorbitol (col. 1, lines 1-15). Vianen discloses that the said saccharide can be glucose, maltose or maltotriose (col.2, lines 45-50). Vianen also discloses that the said low-calorie polysaccharide derivative which can be used as a low-calorie bulking agent to diet foodstuffs to impart characteristics of high-calorie products (col. 4, lines 20-25).

It would have been obvious to person having ordinary skill in the art at the time the invention was made, to modify the composition containing a mixture of malto-oligosaccharides because '418 had disclosed that such compositions had many commercial uses such as encapsulants, acidulants, flocculants, adhesives, antiredeposition agents, and detergent builders (col.1, lines 35-38), in view of the recognition in the art, as evidenced by Vianen reference, that discloses that the saccharides such as glucose, maltose or maltotriose can be derivatized with a food-grade polyol such as sorbitol which can be used as a low-calorie bulking agent to diet foodstuffs to impart characteristics of high-calorie products. The motivation is provided by the '418 patent, the prior art suggests that the mixture of malto-oligosaccharides and derivatized malto-oligosaccharides have many commercial uses such as encapsulants, acidulants, flocculants, adhesives, antiredeposition agents, and detergent builders (col.1, lines 28-38).

### **Response to Arguments**

Applicant's arguments traversing the rejection of claims 1-10 and 34 under 35 U.S.C 103(a) have been fully considered but they are not persuasive.

Art Unit: 1623

Applicant argues, "the '418 patent and the present application were commonly owned and/or subject to an obligation of assignment at the time this invention was made".

It is noted that the present application claims benefit of 60/390,570 dated 06/21/2002.

The '418 patent is a prior art, which cannot be overcome since it has been published more than one year prior to the instant application.

**2. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

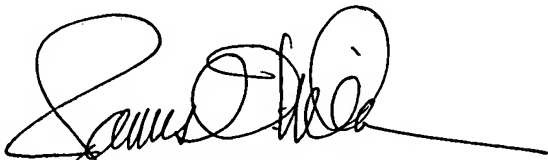
Any inquiry concerning this communication or earlier communications from the

Examiner should be directed to Devesh Khare whose telephone number is (571)272-0653. The examiner can normally be reached on Monday to Friday from 8:00 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James O. Wilson, Supervisory Patent Examiner, Art Unit 1623 can be reached at (571)272-0661. The official fax phone numbers for the organization where this application or proceeding is assigned is (703) 308-4556 or 308-4242.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1235.

Devesh Khare, Ph.D., J.D.  
Art Unit 1623  
April 22, 2005



**JAMES O. WILSON**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 1623**